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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/018,253	12/18/2001	Ignace Lefever	016782-0241	6060

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WASHINGTON, DC 20007

EXAMINER

LAWRENCE JR, FRANK M

ART UNIT	PAPER NUMBER
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1724

DATE MAILED: 05/21/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/018,253

Applicant(s)

LEFEVER ET AL.

Examiner

Frank M. Lawrence

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-14 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-14 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 4.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

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DETAILED ACTION

Specification

1. The abstract of the disclosure is objected to because the submitted abstract describes a different invention (that of WO/01/78431, entitled "Connecting access points in wireless telecommunications systems"). Correction is required. See MPEP § 608.01(b).

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 1 and 7-9 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Each of claims 1 and 7-9 recites relative percentages of alloy components but fails to state that they are by volume or by weight. These percentages should also be corrected in the specification at pages 4-6, 10 and 13.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1, 2, and 7-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over EP 0764455 A2 in view of Applicants' admitted prior art.

6. EP '455 discloses a filter for removing particles from high temperature gases comprising a fibrous sintered web of a metal alloy that can include 17-21% chromium, 2.5-6% aluminum,

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0.02-0.25% yttrium, and the balance iron (abstract, p. 2, lines 46-59, p. 3, lines 45-49). The filter is coated with an alumina layer (p. 5, lines 10-15), is housed in a unit having endcaps (see figures 5-7), and can be tubular and arranged in multiple arrays (see figures 7, 8). The fibers can have a section of 30x15 microns and will inherently be stable at temperatures over 850° C and corrosion resistant. The alumina layer will inherently be predominantly alpha-alumina because it is formed at between 600-1000° C. The instant claims differ from the disclosure of EP '455 in that the filter is in combination with a means for the production of coal-derived gas.

7. Applicants' admitted prior art states that it is known that gas produced in coal-fired power generation systems requires high-temperature filtration of particulates but that no reliable filters for operating at the high temperatures are known (instant specification, p. 1-2). It would have been obvious to one having ordinary skill in the art to use the filter of EP '455 in the coal-derived gas production of the prior art in order to provide a filter for effectively removing particulates in a high-temperature, corrosive environment without degradation.

8. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over EP '455 in view of Applicants' admitted prior art as applied to claim 1 above, and further in view of Delaunay et al. (5,165,899).

9. EP '455 in view of Applicants' admitted prior art discloses all of the limitations of the claims except that the filter medium has a porosity of between 60-85%. Delaunay et al. ('899) disclose a high temperature fibrous filter medium comprising Fe-Al-CR-Y fibers that are sintered and arranged with a predetermined degree of porosity (abstract, col. 2, lines 9-38). It would have been obvious to one having ordinary skill in the art at the time of the invention to modify the

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porosity of the filter of the prior art to be at any desired level that is effective in the filtering requirement.

10. Claim 3, 5 and 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over EP '455 in view of Applicants' admitted prior art as applied to claim 1 above, and further in view of Marcus et al. (4,126,560) and taken together with Mann (4,270,936).

11. EP '455 in view of Applicants' admitted prior art disclose all of the limitations of the claim except that the filter medium comprises a first layer including a mass of metal fibers with a diameter between 4-12 microns and a second layer including a mass of metal fibers with a diameter between 12-30 microns that are layered and sintered. Marcus et al. ('560) disclose a sintered metal fiber filter medium comprising a first layer of 25 micron fibers, a second layer of 12 micron fibers, and a third layer of 8 micron fibers with a stainless steel mesh grid sandwiched between the second and third layers on the downstream side of the second layer (figure, col. 1, lines 37-60, col. 2, lines 16-35). Mann ('936) discloses a fibrous metal filter media comprising an Fe-Al-Cr-Y alloy coated with alpha-alumina for filtering hot gases at up to 1800° F. It would have been obvious to one having ordinary skill in the art at the time of the invention to modify the filter of the prior art by arranging layers of the fibrous metal filter material as recited in order to provide a more efficient and longer lasting filter having a graded porosity for preventing larger diameter particles from blocking the flow through a lower porosity filter layer. It would also have been obvious to use a metal mesh screen that has an Fe-Al-Cr-Y composition in order to provide a known high-temperature resistant means for collecting and holding at least some of the contaminants that exit the upstream layer, giving the filter additional contaminant holding capacity.

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Conclusion

12. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The additional references listed on the attached PTO-892 form disclose high-temperature metallic filter media.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Frank M. Lawrence whose telephone number is 703-305-0585. The examiner can normally be reached on Mon-Thurs 7:30-5:00; alternate Fridays 7:00-4:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tom Dunn can be reached on 703-308-3318. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9310 for regular communications and 703-872-9311 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0651.

Frank Lawrence



Patent Examiner 5-15-03

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May 15, 2003